Acoustical Design: EXPOSED Structure Spaces

Whether making a design statement that puts acoustical materials front and center, or opting for a more open, exposed structure look with a direct attach solution, we've got hundreds of options to help you get the look you want and control noise, too.
The Prelude® XL Max™ suspension system supports single point loads for cable trays, busways, hot aisle containment, and more.

Load connector clips attach to the face of the suspension system to eliminate unsightly threaded rod penetrations through the ceiling plane to minimize unwanted air infiltration while improving access, cable tray layout options, and aesthetics.

Integrated hanging clips allow connection to 3/8" threaded rod for flexible and reconfigurable overhead cable tray and electrical distribution without a separate strut channel system.
HOW IT WORKS

PMLC – Prelude XL Max Load Connector
Used to support bus bars, cable trays, hot aisle containment, and other components with 3/8” threaded rod along the suspension system face

PMHC – Prelude Max Hanging Clip
Used to carry the system with 3/8” threaded rod along the main and at intersections over the IJC

Prelude XL Max Main Beams and Cross Tees
15/16” face double bulb suspension system provides maximum load carrying capacity and Seismic D, E, F performance

IJC – Intersection Joint Clip
Used to connect all cross tees together for rigid connection

PMHC – Prelude Max Hanging Clip
Used for carrying the ceiling system with 3/8” threaded rod from any location along the main beam when plenum obstructions prevent installation at the main beam cross tee intersection.

IHC – Intersection Hanging Clip
Installation

SHC – Supplemental Hanging Clip
Installation

PMLC Clip

#8 x 1/2” long Truss Head Sharp Point Screw

3/8–16” Threaded Rod

3/8–16” Heavy Hex Nut

3/8–16” Heavy Hex Locknut

IHC Clip

Imperial: 3/8” Washer, 1/8” Thickness, 7/8” Width, Steel with Black Oxide /f_inish, Grade 1010 (MSC Item #94491586)

M5 x 6mm, 0.8mm Pan Head Machine Screws
* Threadlocker Adhesive Required

3/8–16” Threaded Rod

3/8–16” Heavy Hex Nut

3/8–16” Heavy Hex Locknut

SHC Clip

IHC – Intersection Hanging Clip Installation

Make sure that the head of the rivet goes through the XL clip. The expanded portion of the rivet needs to expand on the IHC clip.

Blind Steel Pop Rivets 1/8” Dia. x .337” Long .126” – .186” Grip Range Shear Strength: 260 lbs.

Included with SHC; do not substitute.

(Top Lock Main Beam Splice Clip
Locks two main beams together for a secure connection.
* Must be within 6” of an PMLC

TLMBS – Top Lock Main Beam Splice Clip

Cable Tray (By others)

6” Max

All Heavy Hex 3/8” Nuts

3/8” threaded rod to structure (4’ O.C. or as required)
Prelude® XL® Max™
Exposed Tee System

KEY SELECTION ATTRIBUTES
Prelude XL Max 15/16" Suspension System
- 2’ x 2’ and 2’ x 4’ suspension system supports point loads up to 300 lbs. using 3/8” threaded rod and integrated hanging clips to provide:
  - Flexible and reconfigurable overhead cable tray and electrical distribution to meet client needs without a separate strut channel system
  - Eliminates unsightly threaded rod penetrations through the ceiling plane for improved access and aesthetics
  - Reduced ceiling penetrations help minimize unwanted air infiltration
- Suspension system meets ASTM C635, ASTM C636, ASTM E580, ICC-ES AC156 with Seismic D, E, F available
- Factory applied gasket option available
- 30-Year Limited System Warranty
- Standard 2’ x 2’ and 2’ x 4’ grid layouts allow for use of standard size lighting and ceiling tile options

TYPICAL APPLICATIONS
- Data Centers
- Laboratories
- Hospitals

These panels are specially sized and engineered for Prelude XL Max and must be used with the system. These panels do not fit in other suspension systems.

VISUAL SELECTION

<table>
<thead>
<tr>
<th>Item No.</th>
<th>Face Profile</th>
<th>Description</th>
<th>Dimensions (Inches)</th>
<th>Max Loading* Lbs./Lin. Ft.</th>
<th>Fire Guard*</th>
<th>Seismic Category</th>
<th>Pcs./ Ctn.</th>
<th>Lin. Ft./ Ctn.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prelude XL Max</td>
<td>15/16&quot;</td>
<td>12’ Main Beam</td>
<td>144 x 15/16 x 2.44&quot;</td>
<td>40.17</td>
<td>–</td>
<td>–</td>
<td>10</td>
<td>120</td>
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<tr>
<td>730145</td>
<td>15/16&quot;</td>
<td>4’ Cross Tee</td>
<td>48 x 15/16 x 2.44&quot;</td>
<td>40.17</td>
<td>–</td>
<td>–</td>
<td>30</td>
<td>120</td>
</tr>
<tr>
<td>73125</td>
<td>15/16&quot;</td>
<td>2’ Cross Tee</td>
<td>24 x 15/16 x 2.44&quot;</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>30</td>
<td>60</td>
</tr>
<tr>
<td>Molding</td>
<td>15/16&quot;</td>
<td>12’ Structural Wall Angle</td>
<td>144 x 7/8 x 7/8&quot;</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>12</td>
<td>144</td>
</tr>
</tbody>
</table>

These panels do not fit in other suspension systems.

ACCESSORIES

- PMHC – Prelude Max Hanging Clip – Used to carry the ceiling system with 3/8” threaded rod from structure.* Machine screws, Heavy Hex Nut, and Locknut included
  - PMHC – 150 pcs
  - FZPXPMHC – 50 pcs
- PMLC – Prelude XL Max Load Connector – Used to support bus bars, cable trays, hot aisle containment, and other components with 3/8” threaded rod from the suspension system face. * Heavy hex nuts and locknut included
  - PMLC – 100 pcs
  - FZPMLC – 50 pcs
- PMHDC – Maximum Hold Down Clip – Attaches to the top bulb of the Prelude XL Max suspension system to hold ceiling panels in place, helps to prevent ceiling panel movement.
  - PMHDC – 100 pcs
  - FZPMHDC – 50 pcs
- XTAC – Cross Tee Adapter Clip – Securely attaches cross tees or main beams to the structural wall molding around the perimeter of the ceiling installation.
  - XTAC – 100 pcs
  - FZXTAC – 50 pcs
- TLMBS – Top Lock Main Beam Splice Clip – Locks two main beams together for a secure connection.
  - TLMBS – 50 pcs
  - FZTLMBS – 50 pcs
- LJC – Intersection Joint Clip – Used at all cross tee-to-cross tee and main beam-to-cross tee connections. * Machine screws included
  - LJC – 250 pcs
  - FZLJC – 50 pcs
- LSB – Lateral Support Bar
  - LSB12HRC – 10 pcs/120 LF
  - LSB10HRC – 10 pcs/100 LF
  - LSB8HRC – 10 pcs/80 LF

* Simple Span

For custom layout information and technical guidelines, contact TechLineSM customer support at 1 877 276-7876.

PRELUDE® XL® MAX™
Exposed Tee System

Prelude® XL® Max™ with Ultima® item 1927 ceiling panels

These panels are specially sized and engineered for Prelude XL Max and must be used with the system. These panels do not fit in other suspension systems.
SELECTED SQUARE LAY-IN
CEILING PANELS for PRELUDE® XL® MAX™

These panels are specially sized and engineered for Prelude XL Max and must be used with the system. These panels do not fit in other suspension systems.

CLEAN ROOM™ FL

- Clean Rooms up to ISO Class 5 (Class 100)
- Durable – Washable, Scratchable, Soil-resistant
- Non-directional visual reduces installation time and scrap
- 30-Year Limited System Warranty against visible sag, mold, and mildew

ULTIMA®

- Get total noise control and floor plan versatility with Total Acoustics® ceiling panels: NRC + CAC = Total Acoustics Performance™
- Ultima® panels are part of the Sustain® portfolio, and meet the most stringent sustainability compliance standards today
- Smooth, clean, durable finish – Washable, Impact-resistant, Scratch-resistant, Soil-resistant
- Ceiling-2-Ceiling™ Post-consumer Recycled Content options: items 1910HRC, 1913HRC.
- 71% Pre-consumer, 15% Post-consumer

OPTIMA®

- Optima® PB panels are part of the Sustain® portfolio, and meet the most stringent sustainability compliance standards today
- Smooth, clean, durable finish – Washable, Impact-resistant, Scratch-resistant, Soil-resistant
- Items with PB suffix are manufactured with a plant-based binder
- Outstanding acoustical performance for open plan areas, both Articulation Class (180-200) and NRC (0.90-1.00)
- Energy-saving high light-reflective finish

VISUAL SELECTION

<table>
<thead>
<tr>
<th>Item No.</th>
<th>Description</th>
<th>Dimensions Nominal (Inches)</th>
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<tbody>
<tr>
<td>1778</td>
<td>Fine Fissured</td>
<td>23.5 x 23.5 x 5/8”</td>
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<tr>
<td>1779</td>
<td>Fine Fissured</td>
<td>23.5 x 47.5 x 5/8”</td>
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<tr>
<td>1488</td>
<td>Canyon</td>
<td>23.5 x 23.5 x 5/8”</td>
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<tr>
<td>1489</td>
<td>Canyon</td>
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<tr>
<td>1927</td>
<td>Ultima</td>
<td>23.5 x 23.5 x 3/4”</td>
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<td>1928</td>
<td>Ultima</td>
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<td>1815</td>
<td>Clean Room FL</td>
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<td>3398</td>
<td>Optima</td>
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<td>Optima</td>
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PERFORMANCE SELECTION

Dots represent high level of performance.

<table>
<thead>
<tr>
<th>UL Classified Acoustics</th>
<th>Total Acoustics Performance</th>
<th>Fire Performance</th>
<th>Light Reflect</th>
<th>Anti-Mold &amp; Mildew</th>
<th>Sag &amp; Toe-Off</th>
<th>Certified Low VOC Emissions</th>
<th>Durability</th>
<th>Recycled Content</th>
<th>30-Yr Warranty</th>
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<tbody>
<tr>
<td>0.75 35 BETTER</td>
<td>170 Class A</td>
<td>0.86</td>
<td>•</td>
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<td>Std</td>
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<tr>
<td>0.75 35 BETTER</td>
<td>170 Class A</td>
<td>0.86</td>
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<td>Std</td>
<td>Std</td>
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<td>1-Yr</td>
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<td>0.60 35 GOOD</td>
<td>170 Class A</td>
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<td>Std</td>
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<td>0.80 35 BEST</td>
<td>170 Class A</td>
<td>0.87</td>
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<td>0.80 35 BEST</td>
<td>170 Class A</td>
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<tr>
<td>0.55 35 – – – – – – – –</td>
<td>– Class A</td>
<td>0.79</td>
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</tr>
<tr>
<td>0.55 35 – – – – – – – –</td>
<td>– Class A</td>
<td>0.79</td>
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<td>0.90 35 – 200 Class A</td>
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<td>0.90 N/A – 180 Class A</td>
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</tr>
<tr>
<td>0.75 35 BETTER</td>
<td>170 Class A</td>
<td>0.86</td>
<td>•</td>
<td>•</td>
<td>Std</td>
<td>•</td>
<td>•</td>
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<td>•</td>
</tr>
<tr>
<td>0.75 35 BETTER</td>
<td>170 Class A</td>
<td>0.86</td>
<td>•</td>
<td>•</td>
<td>Std</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>1-Yr</td>
</tr>
</tbody>
</table>
CLEAN ROOM
Data Center Ceiling Solutions
**CLEAN ROOM™ Steel Grid Systems**

**KEY SELECTION ATTRIBUTES**

- Suitable for use in Class 5 or greater without hold down clips (Class 100 clean rooms as defined by ISO Standard 14644-1 [Federal Standard 209E]) when used with Clean Room FL, Clean Room VL, Ultima® Health Zone™, and Optima® Health Zone™
- Seismic Rx® suspension system saves time and money, ICC-ES approach to installations (ESR-1308)
- Unique, integral gasket for better seal between panel and suspension system
- Integral main beam splice for easy connections and module control
- XL® staked-on end detail provides secure locked connection
- Rotary-stitched for additional torsion strength and installation
- 10-year limited warranty; 30-year with HumiGuard® Plus

**TYPICAL APPLICATIONS**

- Data Centers
- Automotive and Aerospace
- Computer Rooms
- Hospitals
- Food Processing Facilities
- High Tech Manufacturing
- Pharmaceutical Facilities

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**VISUAL SELECTION**

<table>
<thead>
<tr>
<th>Item No.</th>
<th>Face Profile</th>
<th>Description</th>
<th>Rout Spacing</th>
<th>Dimensions (Inches)</th>
<th>Hanger Spacing*</th>
<th>Fire Guard™</th>
<th>Seismic Category</th>
<th>Pcs./Ctn.</th>
<th>Lin. Ft./Ctn.</th>
</tr>
</thead>
<tbody>
<tr>
<td>ES7901</td>
<td>15/16”</td>
<td>12” HD Main Beam 12” O.C.</td>
<td>144 x 15/16 x 1-1/16”</td>
<td>2 Ft. 4 Ft. 5 Ft.</td>
<td>16.33</td>
<td>–</td>
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<td>20</td>
<td>240</td>
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<tr>
<td>ES7940</td>
<td>15/16”</td>
<td>4’ Cross Tee 24” O.C.</td>
<td>48 x 15/16 x 1-1/16”</td>
<td>–</td>
<td>–</td>
<td>16.83</td>
<td>–</td>
<td>60</td>
<td>240</td>
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<tr>
<td>ES7920</td>
<td>15/16”</td>
<td>2’ Cross Tee</td>
<td>24 x 15/16 x 1-1/16”</td>
<td>60.83</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>60</td>
<td>240</td>
</tr>
</tbody>
</table>

**Other Sizes**

- Main beams L: 36” – 144” / Cross tees L: 6” – 144” / Rout spacing 3” from ends, 6” thereafter

**ES7801**

- 12” Hemmed Angle Molding 144 x 15/16 x 15/16”

**MAXIMUM FIXTURE WEIGHT**

<table>
<thead>
<tr>
<th>Configuration</th>
<th>Item No.</th>
<th>Planning Module</th>
<th>Hanger Spacing</th>
<th>Maximum Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Main Beam to Main Beam</td>
<td>ES7901</td>
<td>24” x 48”</td>
<td>48”</td>
<td>100.0 lbs.</td>
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<tr>
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<td>ES7901</td>
<td>24” x 48”</td>
<td>12” x 48”</td>
<td>70.0 lbs.</td>
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<tr>
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<td>ES7901</td>
<td>12” x 48”</td>
<td>48”</td>
<td>69.0 lbs.</td>
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</tbody>
</table>
## CLEAN ROOM™ Steel Grid Systems

### VISUAL SELECTION

- **Susp. Dwg.** armstrongceilings.com/catdwgs

### PERFORMANCE SELECTION

Dots represent high level of performance.

<table>
<thead>
<tr>
<th>Edge Profile</th>
<th>Item No.</th>
<th>Dimensions (Inches)</th>
<th>UL Classified Acoustics</th>
<th>Total Acoustics®</th>
<th>Fire Guard</th>
<th>Class A</th>
<th>NRC + Cassidy</th>
<th>Molding &amp; Mold Protection</th>
<th>Sag Resist</th>
<th>Water Penetration</th>
<th>Wash</th>
<th>Scratch</th>
<th>Soil</th>
<th>Recycled Content</th>
<th>Recycle Program</th>
<th>30-Yr Warranty</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clean Room™ FL Field Panel</td>
<td>1715</td>
<td>23.5 x 23.5 x 3/4&quot;</td>
<td>0.55 35 – Class A 0.79</td>
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<tr>
<td>Clean Room™ FL Border Panel</td>
<td>1720</td>
<td>23.5 x 23.5 x 5/8&quot;</td>
<td>N/A 35 – Class A 0.79</td>
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<td>Clean Room™ VL Unperforated</td>
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<tr>
<td>VL Perforated (Not for Clean Rooms)</td>
<td>869</td>
<td>23.5 x 23.5 x 5/8&quot;</td>
<td>0.55 35 – Fire Guard 0.78</td>
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<tr>
<td></td>
<td>870</td>
<td>23.5 x 23.5 x 5/8&quot;</td>
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<tr>
<td>Clean Room™ VL Border Panel</td>
<td>871</td>
<td>23.5 x 23.5 x 5/8&quot;</td>
<td>0.55 35 – Fire Guard 0.78</td>
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</tr>
</tbody>
</table>

1 Total Acoustics® ceiling panels have an ideal combination of noise reduction and sound-blocking performance in one product. Also see Optima® Health Zone™ and Ultima® Health Zone™ for use in Clean Rooms.
1 877 276 7876
Customer Service Representatives
7:45 a.m. to 5:00 p.m. EST Monday through Friday

TechLine – Technical information, detail drawings, CAD design assistance, installation information, other technical services – 8:00 a.m. to 5:30 p.m. EST, Monday through Friday. FAX 1 800 572 8324 or email: techline@armstrongceilings.com

You Inspire™ Solutions Center
1 800 988 2585
e-mail: solutionscenter@armstrongceilings.com
armstrongceilings.com/youinspire

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helping to bring your one-of-a-kind ideas to life

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Standard and custom product information
Online catalog
CAD, Revit®, SketchUp® files
A Ceiling for Every Space® Visual Selection Tool
Product literature and samples – express service or regular delivery
Contacts – reps, where to buy, who will install

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armstrongceilings.com/datacenters

Inspiring Great Spaces®